REMARKS

The Applicants appreciate the continued thorough examination of the subject application. By this amendment, certain claims have been amended as set forth above to overcome the Examiner's rejections. Claims 1-15 remain in the application for reconsideration by the Examiner. The Examiner's allowance of all pending claims is earnestly solicited.

Claims 1-15 stand rejected under Section 112, second paragraph for failing to particularly point out and distinctly claim the subject matter that the Applicants regard as the invention.

The Applicants have deleted references to "physical address" to overcome the rejection. Withdrawal of the rejection of claims 1-15 under Section 112, second paragraph, is respectfully requested.

Claims 1-15 stand rejected under Section 103(a) as unpatentable over Bonomi (6,219,352) in view of Knuth, "The Art of Computer Programming" 2nd Edition.

To further distinguish the invention over the art of record, the Applicants have revised independent claim 1. In particular the first paragraph now claims, "forming a circularly linked list further comprising a list of destination nodes, each destination node having an associated destination address for receiving multicast data and a link to a next destination node in the list for processing." Support for this change can be found in the application in the paragraph beginning at line 1 of page 7 and in the text describing Figure 4 beginning on page 9 line 1.

The Examiner has quoted extensively from the Bonomi reference to support the claim rejections. Although the reference and the application share common terminologies, the use and functionality of invention elements as set forth in the claims are different than disclosed in Bonomi.

One of Bonomi's objectives is to save memory space by storing only one copy of each multicast cell (data), instead of storing one copy for each output branch that is to receive the multicast cell. The Applicants invention relates generally to a "method for identifying destination nodes of a multicast session." The amount of memory consumed in storing the multicast data or the amount of memory saved by multicast data storage techniques is not pertinent to the Applicant's invention.

Bonomi's linked list (see Bonomi Figure 5) indicates whether a particular multicast cell is to be transmitted to a particular output branch. But the similarity to the Applicant's invention ends there.

Bonomi's head pointers HP1 and HP2 each identify an output branch or destination node for receiving a multicast cell. These pointers traverse the physical queue 510 comprising locations 510A-510L of Figure 5, and at each queue location the memory location where a multicast cell is stored is identified by the associated queue location 520A-520L in the queue 520. The contents of the associated queue location 530A-530L in the queue 530 serve as a mask indicating whether the associated multicast cell is to be sent to the output branch designated by the head pointer HP1 or HP2. Links at each queue location 510A-510L determine the sequence of queue locations to be traversed by the pointers HP1 and HP2.

When the head pointer HP1 reaches a location 510B, for example, in the linking queue 510, the corresponding storage location 520B identifies the memory location of the multicast data cell to be considered for transmittal to the output branch HP1. Contents of the corresponding location 530B indicate whether the stored cell is to be transmitted to the output branch HP1. After processing at location 510B is complete, the contents of location 510B indicate the next location within the queue 510 to be processed by the pointer HP1. Thus Bonomi's cell destination addresses are effectively represented by the pointers HP1 and HP2.

Knuth adds the concept of a circularly linked list to Bonomi, if the combination is in accordance with the rules for reference combinations.

In contrast to Bonomi's use of the pointers HP1 and HP2 to designate output branches or destination nodes, the Applicants claim "forming a circularly linked list further comprising a list of destination nodes, each destination node having an associated destination address for receiving multicast data and a link to a next destination node in the list for processing." Thus the Applicants destination addresses are contained within the linked list by association with a destination node, as compared to Bonomi's destination address represented by the pointers HP1 and HP2. There is no physical list of destination addresses in Bonomi. Instead, his receiving addresses for the multicast data are the indexing head pointers in conjunction with the contents of the locations within the queue 530.

Note also that Bonomi's physical queue 510 is merely a list of linking information for indicating the next entry in the queue 510 to be processed by the head pointer HP1 or HP2. His physical queue 520 stores memory locations for the data cells to be transmitted, and his physical queue 530 operates as a mask or control function for indicating whether a data cell is to be sent to the location indicated by the indexing head pointer. Since the Applicants now claim "a circularly linked list further comprising a list of destination nodes, each destination node having an associated destination address for receiving multicast data and a link to a next destination node in the list for processing," these elements are absent from Bonomi, amended claim 1 is believed to be allowable over Bonomi.

The differences between the Applicant's invention and Bonomi are further distinguished by the Applicant's step of, "traversing the linked list to process each destination node, for each destination node, sending the multicast data to the associated destination address [i.e., associated with the destination node] and using the link to determine the next destination node for processing." Bonomi does not disclose a destination address associated with a destination node of the linked list. Instead, Bonomi's head pointers HP1 and HP2 identify the destination node (in this case an output branch).

Each of the dependent claims 2-11 and 13 further distinguishes the invention as claimed as each defines a novel and non-obvious combination of additional elements. It is therefore respectfully submitted that dependent claims 2 -11 and 13 depending from amended claim 1 are allowable over the cited art. Certain of these claims have been amended as set forth above for consistent term usage with the independent claim 1 from which they depend.

Claim 12 has been cancelled without prejudice, as the Applicants retain the right to prosecute this claim or a similar claim in a continuing application. Cancellation of this claim is not to be construed as an admission of the validity of the rejection or the relevance of the cited prior art.

As can be seen from the marked-up version above, rejected independent claim 14 has been amended to further distinguish it from the art of record. The remarks above supporting the Applicant's contention that claim 1 is patentably distinct from the combination of Bonomi and Knuth also apply to revised claim 14. For example, Bonomi does not disclose the "circularly linked list of destination nodes wherein each destination node includes . . . an associated destination node address for receiving the multicast data." As explained above,

Bonomi's destination nodes are designated by the pointers, each pointer representing a destination address, and Bonomi's buffer 530 indicates whether the destination node represented by the pointer is to receive the multicast data. The Applicants therefore respectfully submit that amended claim 14 is patentably distinct from the cited art.

Independent claim 15 has been revised as set forth above and is believed to be allowable over the cited art for the same reasons that amended claims 1 and 14 are believed to be allowable over the cited art.

The Applicants have responded to all of the rejections of claims in the Office Action and it is believed that the claims 1-15 remaining in the application are now in condition for allowance. In view of the foregoing amendments and discussion, it is respectfully submitted that all of the Examiner's claim rejections have been overcome. It is respectfully requested that the Examiner reconsider these rejections and issue a Notice of Allowance for all the pending claims.

If a telephone conference will assist in clarifying or expediting this Amendment or the claim changes made herein, the Examiner is invited to contact the undersigned at the telephone number below.

Respectfully submitted,

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CERTIFICATE OF MAILING

I HEREBY CERTIFY that the foregoing Amendment is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Mail Stop Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 10th day of August 2006.

John L. DeAngelis